

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Midwest Foam, Inc.
Attn: Tom Thomas
1616 Chanute Road, Suite D
Peoria, Illinois 61615

Application No.: 03080044

I. D. No.: 143065AYD

Applicant's Designation:

Date Received: August 21, 2003

Subject: Expandable Polystyrene Products Manufacturing Plant

Date issued:

Expiration Date:

Location: 1616 Chanute Road, Peoria

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of polystyrene beads pre-expander, polystyrene beads molding machine, two polystyrene board cutters and grinder controlled by dust collector and polystyrene products gluing operations pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons per year of volatile organic material (VOM) and 10 tons/year for a single hazardous air pollutant (HAP)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. Operations and VOM and HAP(styrene), emissions from polystyrene beads pre-expansion and molding operations shall not exceed the following limits:

Polystyrene Beads Usage: 50 tons/wk, 2,300 tons/yr

Pentane Content (wt.%)	Styrene Content (wt.%)	Pentane Emission Factor (wt.%)	Emissions			
			VOM*	HAP (Styrene)		
			(ton/wk)	(ton/yr)	(ton/wk)	(ton/yr)
4.5	0.35	85	2.1	96.1	0.2	8.1

* - VOM emissions include styrene emission

These limits are based on the maximum production rate and residual pentane and styrene content of the beads, plastic industry pentane emission factor (EPA-450/3-90-020) and 100% styrene evaporation rate. Compliance with annual limits shall be determined on a weekly basis from a running total of 52 weeks of data.

3. VOM emissions from polystyrene boards cutting and grinding operations shall not exceed 1.0 ton/yr. Emission should be calculated using the following equation:

$$E_i = W \times 0.00675, \text{ where}$$

E_i - VOM emissions (tons);

W - amount of waste processed (ton/wk, ton/yr);

0.00675 - product of initial pentane content in the beads, 4.5%, and pentane retention in the final product, 15%.

These limits are based on the maximum waste processing rate and plastic industry pentane retention factor. Compliance with annual limits shall be determined on a weekly basis from a running total of 52 weeks of data.

4. VOM usage in the adhesive and VOM emissions from gluing operations shall not exceed 1.0 ton/yr. Compliance with annual limits shall be determined on a weekly basis from a running total of 52 weeks of data.
5. This permit is issued based on negligible emission of particulate matter from the beads storage, molding, cutting and grinding operations. For this purpose emission from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
6. The Permittee shall maintain weekly records of the following items:
 - a. Polystyrene beads usage (tons/week, tons/yr) and their pentane and styrene content (wt.%);
 - b. Waste product grinding rate (tons/wk, tons/yr);
 - c. Adhesive usage (tons/wk, tons/yr) and its VOM content (wt.%);
 - d. Total VOM and styrene emission calculations (tons/wk, tons/yr).
7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

8. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
9. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: annual polystyrene beads usage and their pentane and styrene content.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this urethane foam products manufacturing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is processing of 2,300 tons of polystyrene beads per year. The resulting maximum emissions are below the levels, e.g., 100 tons per year of VOM and 10 tons per year of a single HAP at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, materials with lower VOM and HAP contents are used, and control measures are more effective than required in this permit.

Process	E M I S S I O N S		
	VOM*	HAP (Styrene)	PM
Expansion/Molding	96.1	8.1	0.44
Cutting/Grinding	1.0	--	0.44
Gluing	1.0	--	--
Beads Storage	--	--	0.44
Total	98.1	8.1	1.32

* - VOM emissions include styrene emission

DES:VJB: